

Federal Communications Commission**§ 90.79**

(f) *Limitation on itinerant operation.* Base or mobile stations being utilized in itinerant operation will be authorized only on base or mobile frequencies designated for itinerant operation under §90.75(c)(3), or on other frequencies not designated for permanent use.

(Secs. 4(i) and 303(r), Communications Act of 1934, as amended, §§0.131 and 0.331 of the Commission's Rules and 5 U.S.C. 553 (b)(3)(B) and (d)(3); 47 U.S.C. 154(i) and 303)

[43 FR 54791, Nov. 22, 1978]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting §90.75, see the List of CFR Sections Affected in the Finding Aids section of this volume.

§ 90.79 Manufacturers Radio Service.

(a) *Eligibility.* Persons primarily engaged in any of the following manufacturing activities are eligible to hold authorizations in the Manufacturers Radio Service to operate radio stations for transmission of communications essential to such activities of the licensee:

(1) The mechanical or chemical transformation of substances into new products within such establishments as plants, factories, shipyards, or mills which employ, in that process, powerdriven machines and materials-handling equipment.

(2) The assembly of components of manufactured products within such establishments as plants, factories, shipyards, or mills where the new product is neither a new structure nor other

fixed improvement. Establishments primarily engaged in the wholesale or retail trade, or in service activities, even though they fabricate or assemble any or all the products or commodities handled, are not eligible in this service.

(3) The providing of supporting services or materials by a corporation to its parent corporation, to another subsidiary of its parent or to its own subsidiary, where such supporting services or materials are directly related to those regular activities of such parent or subsidiary which constitute the basis for eligibility in this service.

(b) *Special limitations on use.* The following limitations are applicable to the use of stations in this service:

(1) Authorized stations may be used only for the transmission of communications related to the operation of the plant, such as for security, production control or materials-handling. Communications related to the retail distribution of the licensees products are not permitted.

(2) Base station will only be authorized in this service for operation at specified and permanent locations.

(c) *Frequencies available.* The following table indicates frequencies available for assignment to stations in the Manufacturers Radio Service, together with the class of stations(s) to which they are normally assigned and the specific assignment limitations which are explained in paragraph (d) of this section:

MANUFACTURERS RADIO SERVICE FREQUENCY TABLE

Frequency or band	Class of station(s)	Limitations
Megahertz:		
72-76	Operational fixed	25
72.02	Mobile	1, 2
72.04 .....	.....do	1, 2
72.06 .....	.....do	1, 2
72.08 .....	.....do	1, 2, 3
72.10 .....	.....do	1, 2
72.12 .....	.....do	1, 2
72.14 .....	.....do	1, 2
72.16 .....	.....do	1, 2, 3
72.18 .....	.....do	1, 2
72.20 .....	.....do	1, 2
72.22 .....	.....do	1, 2
72.24do	1, 2, 3
72.26do	1, 2
72.28do	1, 2
72.30do	1, 2
72.32do	1, 2, 3
72.34do	1, 2
72.36do	1, 2
72.38do	1, 2

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MANUFACTURERS RADIO SERVICE FREQUENCY TABLE—Continued

Frequency or band	Class of station(s)	Limitations
72.40 .....	....do	1, 2, 3
72.44 .....	....do	2, 4
72.48 .....	....do	2, 4
72.52 .....	....do	2, 4
72.56 .....	....do	2, 4
72.60 .....	....do	2, 4
74.61 .....	....do	28
74.63 .....	....do	28
74.65 .....	....do	28
74.67 .....	....do	28
74.69 .....	....do	28
74.71 .....	....do	28
74.73 .....	....do	28
74.75 .....	....do	28
74.77 .....	....do	28
74.79 .....	....do	28
75.21 .....	....do	28
75.23 .....	....do	28
75.25 .....	....do	28
75.27 .....	....do	28
75.29 .....	....do	28
75.31 .....	....do	28
75.33 .....	....do	28
75.35 .....	....do	28
75.37 .....	....do	28
75.39 .....	....do	28
75.44 .....	....do	2, 4
75.48 .....	....do	2, 4
75.52 .....	....do	2, 4
75.56 .....	....do	2, 4
75.60 .....	....do	2, 4
150 to 170	Base or mobile	30
153.050 .....	....do	5, 21, 22
153.0575 .....	....do	5, 21, 22, 23
153.065 .....	....do	5
153.0725 .....	....do	5, 23
153.080 .....	....do	5
153.0875 .....	....do	5, 23
153.095 .....	....do	5
153.1025 .....	....do	5, 23
153.110 .....	....do	5
153.1175 .....	....do	5, 23
153.125 .....	....do	5, 21, 22
153.1325 .....	....do	5, 21, 22, 23
153.140 .....	....do	5
153.1475 .....	....do	5, 23
153.155 .....	....do	5
153.1625 .....	....do	5, 23
153.170 .....	....do	5
153.1775 .....	....do	5, 23
153.185 .....	....do	5
153.1925 .....	....do	5, 23
153.200 .....	....do	5
153.2075 .....	....do	5, 23
153.215 .....	....do	5
153.2225 .....	....do	5, 23
153.230 .....	....do	5
153.2375 .....	....do	5, 23
153.245 .....	....do	5
153.2525 .....	....do	5, 23
153.260 .....	....do	5
153.2675 .....	....do	5, 23
153.275 .....	....do	5
153.2825 .....	....do	5, 23
153.290 .....	....do	5
153.2975 .....	....do	5, 23
153.305do	5
153.3125do	5, 23
153.320do	5
153.3275do	5, 23
153.335do	5, 21
153.3425do	5, 21, 23

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MANUFACTURERS RADIO SERVICE FREQUENCY TABLE—Continued

Frequency or band	Class of station(s)	Limitations
153.350	.....do	5, 21
153.3575	.....do	5, 21, 23
153.365	.....do	5, 21
153.3725	.....do	5, 21, 23
153.380	.....do	5, 21
153.3875	.....do	5, 21, 23
153.395	.....do	5, 21
153.4025	.....do	5, 21, 23
154.45625	Fixed or mobile	6, 9, 10, 19
154.46375	.....do	6, 7, 9, 10, 20
154.47125	.....do	6, 7, 9, 10
154.47875	.....do	6, 9, 10, 19
158.280	Base or mobile	5
158.2875	.....do	5, 23
158.295	.....do	5
158.3025	.....do	5, 23
158.310	.....do	5
158.3175	.....do	5, 23
158.325	.....do	5, 21, 22
158.3325	.....do	5, 21, 22, 23
158.415	.....do	5, 21, 22
158.4225	.....do	5, 21, 22, 23
158.430	.....do	5
158.4375	.....do	5, 23
169–172	Mobile	26
173.20375	Fixed or mobile	6, 7, 9, 10
173.2100	.....do	7, 8, 9, 10
173.2375	.....do	6, 9, 10, 19
173.2625	.....do	6, 9, 10, 19
173.2875	.....do	6, 9, 10, 19
173.3125	.....do	6, 9, 10, 19
173.3375	.....do	6, 9, 10, 19
173.3625	.....do	6, 9, 10, 19
173.3900	.....do	7, 8, 9, 10
173.39625	.....do	6, 7, 9, 10
216–220	Base or mobile	11
220–222	Base and mobile	27
450–470	Fixed, base, or mobile	12, 30
451.1625	Mobile	31
451.175	Base or mobile	13
451.18125	.....do	13, 29
451.18750	.....do	13, 23
451.19375	.....do	13, 29
451.2125	Mobile	31
451.225	Base or mobile	13
451.23125	.....do	13, 29
451.23750	.....do	13, 23
451.24375	.....do	13, 29
451.2625	Mobile	31
451.275	Base or mobile	13
451.28125	.....do	13, 29
451.28750	.....do	13, 23
451.29375	.....do	13, 29
451.3625	Mobile	31
451.375	Base or mobile	13
451.38125	.....do	13, 29
451.38750	.....do	13, 23
451.39375	.....do	13, 29
451.4125	Mobile	31
451.425	Base or mobile	13
451.43125	.....do	13, 29
451.43750	.....do	13, 23
451.44375	.....do	13, 29
451.4625	Mobile	31
451.475	Base or mobile	13
451.48125	.....do	13, 29
451.48750	.....do	13, 23
451.49375	.....do	13, 29
451.5125	Mobile	31
451.525	Base or mobile	13
451.53125do	13, 29
451.53750do	13, 23

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MANUFACTURERS RADIO SERVICE FREQUENCY TABLE—Continued

Frequency or band	Class of station(s)	Limitations
451.54375 .....	.....do	13, 29
451.5625	Mobile	31
451.575	Base or mobile	13
451.58125 .....	.....do	13, 29
451.58750 .....	.....do	13, 23
451.59375 .....	.....do	13, 29
451.6125	Mobile	31
451.625	Base or mobile	13
451.63125 .....	.....do	13, 29
451.63750 .....	.....do	13, 23
451.64375 .....	.....do	13, 29
451.6625	Mobile	31
451.675	Base or mobile	13
451.68125 .....	.....do	13, 29
451.68750 .....	.....do	13, 23
451.69375 .....	.....do	13, 29
456.1625	Mobile	31
456.175 .....	.....do	13
456.18125 .....	.....do	13, 29
456.18750 .....	.....do	13, 23
456.19375 .....	.....do	13, 29
456.2125 .....	.....do	31
456.225 .....	.....do	13
456.23125 .....	.....do	13, 29
456.23750 .....	.....do	13, 23
456.24375 .....	.....do	13, 29
456.2625 .....	.....do	31
456.275 .....	.....do	13
456.28125 .....	.....do	13, 29
456.28750 .....	.....do	13, 23
456.29375 .....	.....do	13, 29
456.3625 .....	.....do	31
456.375 .....	.....do	13
456.38125 .....	.....do	13, 29
456.38750 .....	.....do	13, 23
456.39375 .....	.....do	13, 29
456.4125 .....	.....do	31
456.425 .....	.....do	13
456.43125 .....	.....do	13, 29
456.43750 .....	.....do	13, 23
456.44375 .....	.....do	13, 29
456.4625 .....	.....do	31
456.475 .....	.....do	13
456.48125 .....	.....do	13, 29
456.48750 .....	.....do	13, 23
456.49375 .....	.....do	13, 29
456.5125 .....	.....do	31
456.525 .....	.....do	13
456.53125 .....	.....do	13, 29
456.53750 .....	.....do	13, 23
456.54375 .....	.....do	13, 29
456.5625 .....	.....do	31
456.575 .....	.....do	13
456.58125 .....	.....do	13, 29
456.58750 .....	.....do	13, 23
456.59375 .....	.....do	13, 29
456.6125 .....	.....do	31
456.625 .....	.....do	13
456.63125 .....	.....do	13, 29
456.63750 .....	.....do	13, 23
456.64375 .....	.....do	13, 29
456.6625 .....	.....do	31
456.675 .....	.....do	13
456.68125 .....	.....do	13, 29
456.68750 .....	.....do	13, 23
456.69375 .....	.....do	13, 29
462.1875 .....	.....do	31
462.200	Base or mobile	29
462.20625do	23
462.21250do	29
462.21875do	29
462.225do	

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MANUFACTURERS RADIO SERVICE FREQUENCY TABLE—Continued

Frequency or band	Class of station(s)	Limitations
462.23125 .....	....do	29
462.23750 .....	....do	23
462.24375 .....	....do	29
462.250 .....	....do	29
462.25625 .....	....do	29
462.26250 .....	....do	23
462.26875 .....	....do	29
462.275 .....	....do	29
462.28125 .....	....do	29
462.28750 .....	....do	23
462.29375 .....	....do	29
462.300 .....	....do	29
462.30625 .....	....do	29
462.31250 .....	....do	23
462.31875 .....	....do	29
462.325 .....	....do	29
462.33125 .....	....do	29
462.33750 .....	....do	23
462.34375 .....	....do	29
462.350 .....	....do	29
462.35625 .....	....do	29
462.36250 .....	....do	23
462.36875 .....	....do	29
462.375 .....	....do	29
462.38125 .....	....do	29
462.38750 .....	....do	23
462.39375 .....	....do	29
462.400 .....	....do	29
462.40625 .....	....do	29
462.41250 .....	....do	23
462.41875 .....	....do	29
462.425 .....	....do	29
462.43125 .....	....do	29
462.43750 .....	....do	23
462.44375 .....	....do	29
462.450 .....	....do	29
462.45625 .....	....do	29
462.46250 .....	....do	23
462.46875 .....	....do	29
462.475 .....	....do	13
462.48125 .....	....do	13, 29
462.48750 .....	....do	13, 23
462.49375 .....	....do	13, 29
462.500 .....	....do	29
462.50625 .....	....do	23
462.51250 .....	....do	29
462.51875 .....	....do	29
462.525 .....	....do	13
462.53125 .....	....do	13, 29, 29
467.1875	Mobile	31
467.200 .....	....do	29
467.20625 .....	....do	23
467.21250 .....	....do	29
467.21875 .....	....do	29
467.225 .....	....do	29
467.23125 .....	....do	29
467.23750 .....	....do	23
467.24375 .....	....do	29
467.250 .....	....do	29
467.25625 .....	....do	29
467.26250 .....	....do	23
467.26875 .....	....do	29
467.275 .....	....do	29
467.28125 .....	....do	23
467.28750 .....	....do	23
467.29375 .....	....do	29
467.300 .....	....do	29
467.30625 .....	....do	29
467.31250 .....	....do	23
467.31875 .....	....do	29
467.325 .....	....do	29
467.33125 .....	....do	29

MANUFACTURERS RADIO SERVICE FREQUENCY TABLE—Continued

Frequency or band	Class of station(s)	Limitations
467.33750 .....	....do	23
467.34375 .....	....do	29
467.350 .....	....do	
467.35625 .....	....do	29
467.36250 .....	....do	23
467.36875 .....	....do	29
467.375 .....	....do	
467.38125 .....	....do	29
467.38750 .....	....do	23
467.39375 .....	....do	29
467.400 .....	....do	
467.40625 .....	....do	29
467.41250 .....	....do	23
467.41875 .....	....do	29
467.425 .....	....do	
467.43125 .....	....do	29
467.43750 .....	....do	23
467.44375 .....	....do	29
467.450 .....	....do	
467.45625 .....	....do	29
467.46250 .....	....do	23
467.46875 .....	....do	29
467.475 .....	....do	13
467.48125 .....	....do	13, 29
467.48750 .....	....do	13, 23
467.49375 .....	....do	13, 29
467.500 .....	....do	
467.50625 .....	....do	29
467.51250 .....	....do	23
467.51875 .....	....do	29
467.525 .....	....do	13
467.53125 .....	....do	13, 29
470 to 512	Base or mobile	14
806 to 821	Mobile	15
851 to 866	Base or mobile	15
896 to 901	Mobile	15
928 and above	Operational fixed	16
929 to 930	Base only	24
935 to 940	Base or mobile	15
1427 to 1435	Operational fixed, base or mobile	1
2450 to 2500	Base or mobile	17
8400 to 8500 .....	....do	18
10,550 to 10,680*	....do	

* The frequencies in the band 10.55–10.68 GHz are available for Digital Termination Systems and for associated internodal links in the Point-to-Point Microwave Radio Service. No new licenses will be issued under this subpart but current licenses will be renewed.

(d) Explanation of assignment limitations appearing in the frequency tabulation of paragraph (c) of this section:

(1) This frequency is shared with fixed stations in other services and is subject to no protection from interference.

(2) All communications on this frequency must be conducted within the boundaries or confines of plant, factory, shipyards, mill, or other manufacturing area. All operations on this frequency are subject to the provisions of § 90.257(b).

(3) This frequency is shared with the Radio Control (R/C) Service, part of the Personal Radio Services, where it is

used solely for the radio control of models.

(4) This frequency is available on a shared basis in the Manufacturers, Forest Products, Special Industrial, Railroad, and Fire Radio Services and interservice coordination is required. All communications must be within the boundaries or confines of plants, mills, yards, or other manufacturing areas. All operations on this frequency are subject to the provisions of § 90.257(b).

(5) This frequency is shared with the Forest Products and Petroleum Radio Services. The output power of transmitters operating on this frequency shall not exceed 110 watts.

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(6) For FM transmitters the sum of the highest modulating frequency in hertz and the amount of frequency deviation or swing in hertz may not exceed 2800 Hz and the maximum frequency deviation may not exceed 2.5 kHz. For AM transmitters the highest modulating frequency may not exceed 2000 Hz. The carrier frequency must be maintained within 0.0005 percent of the center of the frequency band, and the authorized bandwidth may not exceed 6 kHz.

(7) On this frequency band the maximum power output of the transmitter may not exceed 50 watts for fixed stations and 1 watt for mobile stations. A1B, A2D, A2B, A2D, F1B, F1D, F2B, F2D, G1B, G1D, G2B or G2D emission may be authorized, and mobile stations used to control remote objects and devices may be operated in the continuous transmit mode.

(8) For FM transmitters the sum of the highest modulating frequency in hertz and the amount of frequency deviation or swing in hertz may not exceed 1700 Hz and the maximum deviation may not exceed 1.2 kHz. For AM transmitters the highest modulating frequency may not exceed 1200 Hz. The carrier frequency must be maintained within 0.0005 percent of the center of the frequency band, and the authorized bandwidth may not exceed 3 kHz.

(9) This frequency is available on a shared basis with other Industrial Radio Services as follows: Power, Forest Products, Special Industrial, Petroleum, Business, and the Local Government Radio Service and may be used in this service only for the purpose of remote control and telemetering.

(10) Operational fixed stations must employ directional antennas having a front-to-back ratio of at least 20 db. Omnidirectional antennas having unity gains may be employed for stations communicating with at least three receiving locations separated by 160° of azimuth.

(11) This frequency band is available to stations in this service subject to the provisions of § 90.259.

(12) The requirements for secondary fixed use of frequencies in this band are set forth in § 90.261.

(13) This frequency is available on a shared basis in the Power, Petroleum,

Forest Products, Manufacturers, and Telephone Maintenance Radio Services. It may be assigned only when all of the frequencies in the 450-470 MHz band allocated to the service in which the applicant is primarily eligible are assigned within 56 km. (35 mi) of the proposed base station.

(14) Subpart L contains rules for assignment of frequencies in the 470-512 MHz band.

(15) Subpart S contains rules for assignment of frequencies in the 806-821/851-866 and 896-901/935-940 MHz bands.

(16) Assignment of frequencies above 928 MHz for operational-fixed stations is governed by part 94 of this chapter.

(17) Available only on a shared basis with stations in other services, and subject to no protection from interference due to the operation of industrial, scientific, or medical (ISM) devices. In the 2483.5-2500 MHz band, no applications for new or modification to existing stations to increase the number of transmitters will be accepted. Existing licensees as of July 25, 1985, or on a subsequent date following as a result of submitting an application for license on or before July 25, 1985, are grandfathered and their operation is co-primary with the Radiodetermination Satellite Service.

(18) Use of this frequency band is limited to developmental operation and is subject to the provisions of subpart Q.

(19) The maximum effective radiated power (ERP) may not exceed 20 watts for fixed stations and 2 watts for mobile stations and the height of the antenna system may not exceed 15.24 meters (50 feet) above ground. All such operation is on a secondary basis to adjacent channel land mobile operations.

(20) Use of this frequency is limited to stations located at least 120.7 km (75 miles) from the center of any urbanized area of 200,000 or more population (U.S Census of Population, 1970). Operation is on a second any basis to that in the Power Radio Service.

(21) This frequency is shared with the Special Industrial Radio Service in the States of North Dakota; South Dakota; Iowa; Nebraska; Kansas and Missouri beyond 80 km (50 miles) from St. Louis and Kansas City; Colorado and Wyoming east of Longitude 106 degrees; and

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Minnesota south of Latitude 47 degrees.

(22) This frequency may not be shared in the Special Industrial Radio Service within 32 km (20 miles) of the cities of Duluth, Minnesota; Des Moines and Davenport, Iowa; Omaha, Nebraska; Colorado Springs, Colorado; and Wichita, Kansas.

(23) This frequency is not available in the 150-170 MHz band until August 18, 1996. This frequency will be assigned with an authorized bandwidth not to exceed 11.25 kHz. In the 450-470 MHz band, secondary telemetry operations pursuant to § 90.238(e) will be authorized on this frequency.

(24) Frequencies in this band are available only for one-way paging operations in accordance with § 90.494.

(25) The frequencies available for use at operational-fixed stations in the band 72-76 MHz are listed in § 90.257(a)(1). These frequencies are shared with other services and are available only in accordance with the provisions of § 90.257.

(26) Frequencies in this band will be assigned for low power wireless microphones in accordance with the provisions of § 90.265.

(27) Subpart T contains rules for assignment of frequencies in the 220-222 MHz band.

(28) This frequency is available on a shared basis in the Power, Petroleum, Business, and Railroad Radio Services and interservice coordination is required. All communications on this frequency must be conducted within the boundaries or confines of a plant, factory, shipyard, mill, or other manufacturing area. All operations on this frequency are subject to the provisions of § 90.257(b). Pulsed modulations will not be authorized.

(29) This frequency is not available until August 18, 1996. After August 18, 1996 this frequency will be assigned with an authorized bandwidth not to exceed 6 kHz.

(30) Assignment of frequencies in this band are subject to the provisions of § 90.173.

(31) This frequency is available for systems first licensed prior to August 18, 1995. No new systems will be authorized after August 18, 1995, but prior au-

thorized systems may be modified, expanded, and renewed.

(e) *Additional frequencies available.* In addition to the frequencies shown in the frequency table of this section, the following frequencies are available in this service: (See also § 90.253.)

(1) Frequencies may be substituted for those available below 25 MHz in accordance with the provisions of § 90.263.

(2) [Reserved]

(3) Frequencies in the band 73.0-74.6 MHz may be assigned to stations authorized their use on or before December 1, 1961, but no new stations will be authorized in this band, nor will expansion of existing systems be permitted. (See also § 90.257.)

(4) Frequencies in the 421-430, MHz band are available in the Detroit, Cleveland, and Buffalo areas in accordance with the rules in §§ 90.273 through 90.281.

(f) *Limitation on number of frequencies assignable.* Normally only one frequency or pair of frequencies in the paired frequency mode of operation, will be assigned for mobile service operations by a single applicant in a given area. The assignment of an additional frequency or pair of frequencies will be made only upon a satisfactory showing of need, except that:

(1) Additional frequencies above 25 MHz may be assigned in connection with operation of mobile repeaters in accordance with § 90.247 notwithstanding this limitation.

(2) Frequencies in the ranges 30.56-30.57 MHz, 35.00-35.01 MHz, 35.99-36.00 MHz, and 37.00-37.01 MHz are available for assignment to applicants in this service subject to the provisions of subpart Q notwithstanding this limitation.

(3) Frequencies in the 25-50 MHz, 150-170 MHz, 450-512 MHz and 902-928 MHz bands may be assigned for the operation of Location and Monitoring Service (LMS) systems in accordance with the provisions of subpart M of this part, notwithstanding this limitation.

(Secs. 4(i) and 303(r), Communications Act of 1934, as amended, §§ 0.131 and 0.331 of the Commission's Rules and 5 U.S.C. 553 (b)(3)(B) and (d)(3); 47 U.S.C. 154(i) and 303)

[43 FR 54791, Nov. 22, 1978]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 90.79, see the List of CFR

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§ 90.81

Sections Affected in the Finding Aids section of this volume.

§ 90.81 Telephone Maintenance Radio Service.

(a) *Eligibility.* Communications common carriers engaged in the provision of landline local exchange telephone service, or interexchange communications service, or who provide wire-telegraph service, and radio communications common carriers authorized in the Point-to-Point Microwave Radio Service under part 21 of this chapter are eligible to hold authorizations in the Telephone Maintenance Radio Service. Resellers that do not own or control transmission facilities are not eligible in this service.

(b) *Special limitations on use.* The facilities authorized in this service shall only be used for transmission of communications directly related to the construction, repair, maintenance or operation of communications common carrier facilities. The facilities authorized in this service shall not be used for the transmission of any common carrier or public correspondence communication.

(c) *Frequencies available.* The following table indicates frequencies available for assignment to stations in the Telephone Maintenance Radio Service, together with the class of station(s) to which they are normally assigned and the specific assignment limitations which are explained in paragraph (d) of this section:

TELEPHONE MAINTENANCE RADIO SERVICE FREQUENCY TABLE

Frequency or band	Class of station(s)	Limitations
Kilohertz:		
2,000 to 25,000	Fixed, base or mobile	14
Megahertz:		
35.16	Base or mobile	
43.16	Mobile	
72–76	Operational fixed	13
150 to 170	Base or mobile	17
151.985	Base or mobile	
152.9925 .....	....do	16
158.34	Mobile	
158.3475 .....	....do	11
169–172 .....	....do	15
216 to 220	Base or mobile	2
220–222	Base and mobile	1
450 to 470	Fixed, base, or mobile	3, 17
451.1625	Mobile	18
451.175	Base or mobile	4
451.18125 .....	....do	4, 16
451.18750 .....	....do	4, 11
451.19375 .....	....do	4, 16
451.2125	Mobile	18
451.225	Base or mobile	4
451.23125 .....	....do	4, 16
451.23750 .....	....do	4, 11
451.24375 .....	....do	4, 16
451.2625	Mobile	18
451.275	Base or mobile	4
451.28125 .....	....do	4, 16
451.28750 .....	....do	4, 11
451.29375 .....	....do	4, 16
451.300 .....	....do	
451.30625 .....	....do	16
451.31250 .....	....do	11
451.31875 .....	....do	16
451.325 .....	....do	
451.33125 .....	....do	16
451.33750 .....	....do	11
451.34375 .....	....do	16
451.350 .....	....do	
451.35625 .....	....do	16
451.36250 .....	....do	11
451.36875 .....	....do	16
451.375 .....	....do	4
451.38125 .....	....do	4, 16
451.38750 .....	....do	4, 11
451.39375 .....	....do	4, 16